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7590		04/30/2007	EXAMINER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/646,303

Applicant(s)

HUANG, ZYH-MING

Examiner

TuyetLien (Lien) T. Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. This action is responsive to the following communications: The original application filed on 8/25/2003 and is a pro se application.
2. An examination of this application reveals that applicant is unfamiliar with patent prosecution procedure. While an inventor may prosecute the application, lack of skill in this field usually acts as a liability in affording the maximum protection for the invention disclosed. Applicant is advised to secure the services of a registered patent attorney or agent to prosecute the application, since the value of a patent is largely dependent upon skilled preparation and prosecution. The Office cannot aid in selecting an attorney or agent.

A listing of registered patent attorneys and agents is available on the USPTO Internet web site <http://www.uspto.gov> in the Site Index under "Attorney and Agent Roster." Applicants may also obtain a list of registered patent attorneys and agents located in their area by writing to the Mail Stop OED, Director of the U. S. Patent and Trademark Office, PO Box 1450, Alexandria, VA 22313-1450

### *Drawings*

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character not mentioned in the description: 100. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New

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Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action.

The objection to the drawings will not be held in abeyance.

**No new matter should be entered.**

### ***Claim Objections***

4. Claims 1-7 are objected to because of the following informalities: the term "virtual reality frame" recited in claims 1-7 is not common terminology in the art. In addition, it is suggested that the term "as" recited in line 4 of the claim should be removed. The term "to" recited in line 3 should be changed to "on". The term "present" recited in line 10 should be changed to "presented". The term "displaced" recited in line 18 should be changed to "displayed". It is also suggested that the term "so that the toys act" should be changed to "so that the toys can act". Appropriate correction is required.

Claim 3 is objected to because of the following informalities: It is suggested that the term "so that the users simulate" should be changed to "so that the users can simulate". Appropriate correction is required.

Claim 4 is objected to because of the following informalities: It is suggested that the term "so that the user controls the toys" should be changed to "so that the user can control the toys". Appropriate correction is required.

Claim 6 is objected to because of the following informalities: claim 6 introduces the limitations of a door, a window, a kitchen and a bath but gives no indication of how these limitations relate to the system of claim 1. The Examiner interprets claim 6 as "wherein said objects in a room comprising a door, a window, a kitchen, a bath; wherein the door ....". Appropriate correction is required.

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Claim 7 is objected to because of the following informalities: claim 6 introduces the limitations of a toy bear, a toy web, a toy dog, and a toy car but gives no indication of how these limitations relate to the system of claim 1. The Examiner interprets claim 6 as "wherein said plurality of toys comprising a toy bear, a toy web, a toy dog, and a toy car; wherein the toy bear .....". Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 1-7 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. For example, claim 1, the claim describe a system comprising a virtual reality frame and real objects with sensors and transmitters "wherein the signal of the sensors are transmitted to the mainframe through the transmitter so that the virtual reality frame can show the result; and the transceiver transmits the signals to the receiver so that the toys act according to the received signals". The specification is vacant regarding a concise description of the claim limitation and does not teach the skilled artisan as to what result the virtual reality frame would show and that how the toys act according to the received signals.

The applicant is required to furnish a definition in the specification that enables one skilled in the art to be able to perform, build or understand the application. The applicant is required to review all of the claims and provide adequate definitions in the specification.

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7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-7 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitations "the receiver" in line 16, "the actions" in line 17. There is insufficient antecedent basis for these limitations in the claim.

Claims 3 and 4 recite the limitation "the virtual reality program" in line 3 of the claims. There is insufficient antecedent basis for these limitations in the claim.

Claim 3 also recites the limitation "the users" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 4 also recites the limitation "the user" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 5 recites the limitation "the toy" in line 2 and "the real toys" in line 4. There is insufficient antecedent basis for these limitations in the claim.

Claim 6 recites the limitation "the transmitter" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Any claim not specifically addressed, above, is being rejected as incorporating the deficiencies of a claim upon which it depends.

### ***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1-4 and 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. (Patent No US 6460851, hereinafter Lee).

***As to claim 1***, Lee teaches:

A synchronous system for a virtual reality frame and real objects (e.g., see Fig. 1; note that a virtual representation of the activity landscape can be displayed on the monitor of the computer, see col. 4 lines 28-32) comprising:

a virtual reality system being installed to a mainframe with display frame called as a virtual reality frame, wherein the mainframe is selected from one of a computer, a PDA, and a game machine (e.g., see Fig. 1; note that a virtual representation of the activity landscape can be displayed on the monitor of the computer and that the computer modifies its understanding of the activity landscape to match the physical structure of the activity center, see col. 4 lines 28-36);

objects in a room being installed with sensors and transmitters (e.g., play objects such as wall or play board; note that sensor are installed within the main board to detect the presence of a play object and the orientation of that play object, see Fig. 2 and col. 6 lines 15-24) , signals of these sensors being transmitted to a transceiver of the mainframe so that the mainframe knows the conditions of the object in the room (e.g., see col. 6 lines 25-36); a plurality of object icons being present in the virtual reality frame (e.g., the computer 13 as shown in Fig. 1 can show a wall in a virtual representation of the activity landscape on the monitor of the computer, see col. 4 lines 28-36);

a plurality of toys being in a room (e.g., action objects 30 and 32 as shown in Fig. 1);



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wherein the signal of the sensors are transmitted to the mainframe through the transmitters so that the virtual reality frame can show the result (e.g., see col. 4 lines 28-36) and the transceiver transmits the signals to the receiver so that the toys act according to the received signals (e.g., see col. 5 lines 10-15);

Lee further teaches that objects in a room and action objects or toy object can be identified by the personal computer and that any change made to the activity landscape will be identified by the computer (e.g., see col. 4 lines 30-36 and col. 5 lines 15-25).

Lee does not expressly teach that the toy icons being presented in the virtual reality frame and the actions of the toys are displaced by the toy icons in the virtual reality frame.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have implemented the feature of displaying a plurality of toy icons being presented in the virtual reality frame displaying the action of the toy in the virtual reality frame because Lee suggests to the skilled artisan that the computer is capable of displaying activity landscape on the monitor, the computer would also can display objects that represents physical toys because toy objects such as ones shown in Fig. 1 is part of the activity landscape, see col. 4 lines 28-36 so that multiple viewers can view the computer screen in order to determine the position of the game pieces and the game pieces of the other players.

**As to claim 2**, Lee further teaches wherein the actions of the toys are programmed and then are stored in the virtual reality frame (e.g., see col. 5 lines 38-49).

**As to claim 3**, Lee further teaches wherein the objects in the room are simulated in the virtual reality program so that the users simulate conditions of the room in the virtual reality frame (e.g., see col.5 lines 50-62).



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**As to claim 4**, Lee further teaches wherein the actions of the toys are stored in the virtual reality program so that the user controls the toys by the stored actions of the toys (e.g., note that the computer can be preprogrammed with various story lines and that the computer can interact with a child playing in an activity center to direct play in accordance with the story line, see col. 5 lines 38-49).

**As to claim 6**, Lee further teaches that the prop objects can include a door, a window (e.g., doors and any other stationary objects that define the doll house; note that a house usually includes at least one window, a bathroom, a kitchen, see col. 3, lines 50-53). Lee does not expressly teach that the door is installed with a temperature sensor and the transmitter, a window is installed with a vibration sensor and a transmitter, a kitchen is installed with a smoke sensor and a transmitter, and a bath room is installed with a moisture sensor and a transmitter.

However, Lee teaches that prop objects such as main board can include sensors capable of detecting the presence of a play object and then created signal that indicates the change in the landscape (e.g., see col. 6 lines 15-35). Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to have implemented this limitation so that the computer can monitor play and interact with play by structuring story lines to govern play.

**As to claim 7**, Lee teaches the limitations of claim 1 for the reasons above. Lee further teaches that the toy figure as shown in Fig. 2 is installed with a transducer 64. Lee does not expressly teach that the toys are a toy bear, a toy web, a toy dog, and a toy car. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have implemented this limitation because Lee suggests to the skilled artisan that a person skilled in the art can make many variations to the embodiments shown without departing from

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the scope of the disclose invention and that the various elements from the different embodiments shown can be mixed together to create alternate embodiments without losing the scope of the invention. One would motivated to do so for the same reason as discussed with respect to claim 1 above.

11. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee in view of Tong (Patent No 5636994; hereinafter Tong).

***As to claim 5***, Lee teaches the limitation of claim 1 for the same reasons as discussed above. Lee further teaches wherein a series of actions of the toy are learnt and the result of the actions are stored in the mainframe (e.g., note that the computer can be preprogrammed with various story lines and that the computer can interact with a childe playing in an activity center to direct play in accordance with the story line, see col. 5 lines 38-49). Lee does note expressly teach the real toys execute the complex action according to the learning result.

Tong, though, teaches an interactive computer controlled doll wherein a series of actions of the toy are leant and the result of the actions are stored in the mainframe; the real toys execute the complex action according to the learning result (e.g., see col. 2 lines 59-67 – col. 3 lines 1-2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have implemented the feature of the real toys execute the complex action according to the learning result as taught by Tong the virtual display system as taught by Lee to provide a system in which a person appears to interact with a three-dimensional animated doll.

### ***Conclusion***

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The prior art made of record on form PTO-892 and not relied upon is considered pertinent to applicant's disclosure. Applicant is required under 37 C.F.R. § 1.111(c) to consider these references fully when responding to this action.

**Examiner's note:** Examiner has cited particular columns, line numbers, and figures in the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teaching of the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TuyetLien (Lien) T. Tran whose telephone number is 571-270-1033. The examiner can normally be reached on Mon-Friday: 7:30 - 5:00, off on alternating Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Weilun Lo can be reached on 571-272-4847. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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4/24/2007

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Art Unit 2179

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